

3 (b) a diffusion barrier layer, wherein the diffusion barrier comprises a
4 self-assembled monolayer; and

5 (c) a metal layer on the diffusion barrier,
6 wherein the device is capable of being biased at about 2 MV/cm at about 200 °C
7 for about 30 minutes without diffusion of metal from the metal layer into the substrate.

1 25. (New) The semiconductor device of claim 24 wherein the substrate
2 comprises silicon oxide on silicon and the metal layer comprises copper.

1 26. (New) The semiconductor device of claim 24 wherein the self-assembled
2 monolayer comprises a plurality of molecules, each molecule comprising an aromatic
3 group at a terminal portion of the molecule.

1 27. (New) The semiconductor device of claim 24 wherein the metal layer is a
2 formed by a sputtering process.

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